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International training - world
maritime university

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RESPONSIBLE FISHERIES

S U M M A R Y



INTERNATIONAL TRAINING -
WORLD MARITIME
UNIVERSITY

NOVEMBER 1999

Links forged with international training institutes offer Canada an opportunity to reinforce its position as a world leader in the development and implementation of responsible fishing practices and technologies aimed at the achievement of conservation-oriented and sustainable world fisheries.



Visiting professors, Andrew Duthie of (DFO) and John Fitzpatrick (formerly FAO), lecture on responsible fishing to a multi-national group of students attending the World Maritime University in Malmö, Sweden.

INTRODUCTION

Dr. Karl Laubstein, Rector, World Maritime University, Malmö, Sweden, recently approached the Department of Fisheries and Oceans (DFO), Canada requesting that the Department participate in the development and delivery of a course on fisheries management to be delivered to an international group of students enrolled in the

University's Master's Program in Safety and Environmental Protection (policy).

Invited as part of a team assembled to introduce the topic of fisheries management, Canada would share with this multi-national group its experience with the development of responsible fisheries.

This request provided the Department with an extraordinary opportunity to promote its commitment to global development of responsible fisheries and to make good on its offer to the international fishing community to exchange information on fisheries management and conservation technology.



Government of Canada
Fisheries and Oceans

Gouvernement du Canada
Pêches et Océans

Canada

From August 23 to 27, 1999, a representative from the DFO's Fisheries Management Branch joined forces with former personnel from the Food and Agriculture Organization of the United Nations (FAO) to deliver lectures on responsible fishing, bringing WMU students up to scratch on what is happening on the world scene with regard to the development of responsible fisheries.

WORLD MARITIME UNIVERSITY

The World Maritime University (WMU) was established in 1983 under the auspices of the International Maritime Organization (IMO). Its purpose has been:

"to serve the global maritime community as the International Maritime Organization's apex institution for higher level maritime

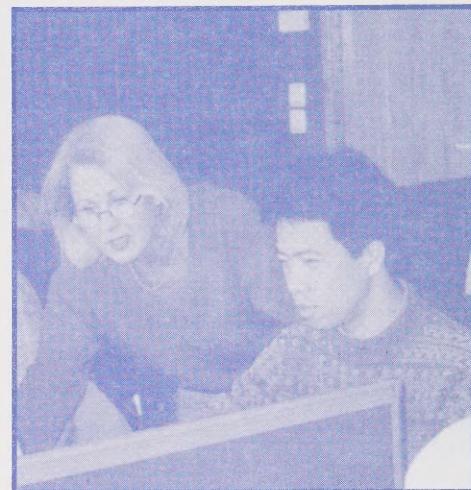
education and training in furtherance of IMO's aims and objectives."

A major objective of IMO is the sustainable use of the marine physical environment.

To accomplish its goals, the University has academic partnerships agreements with universities and national training institutions around the world including Canada's Dalhousie University.

WMU offers a MSc. and postgraduate diploma courses in:

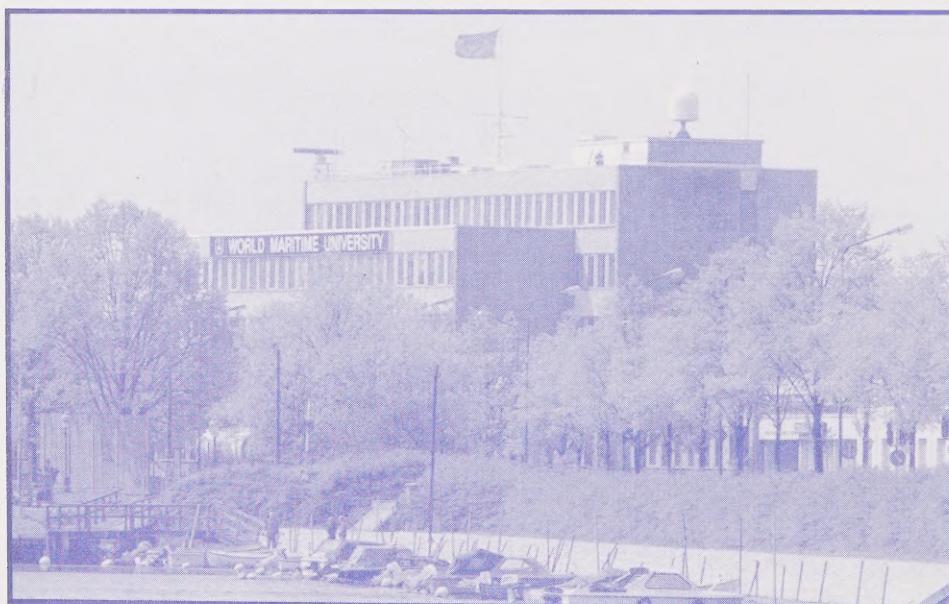
- Maritime Safety & Environmental Protection;
- Maritime Education & Training;
- Port Management; and
- Shipping Management.



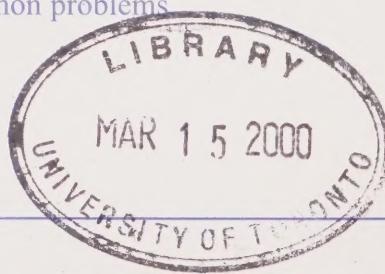
The university attracts students from over 100 countries around the world.

Many students entering the study program are mature professionals who have already achieved high level positions within their chosen fields. Students range from chairs of national shipping companies and deputy ministers to directors of ports and managers responsible for environmental protection. Those holding these positions develop and implement policies that may directly or indirectly impact on fisheries.

The multi-national environment at WMU provides graduates with access to a network of global professionals who hold positions of authority and influence in their respective countries. Recognizing the importance of cooperation across disciplines and national boundaries, members of this growing network consult and cooperate with one another to solve common problems.



Campus of World Maritime University (WMU) in Malmö, Sweden



WHY PARTICIPATE IN INTERNATIONAL TRAINING?

WMU constantly updates its courses to ensure that graduates are equipped with the knowledge and skills needed to be effective in the ever-changing marine environment.

To meet the challenge of providing quality and relevant education and training, the World Maritime University relies on input from its partners - the marine industry and governments of the world.

With the Declaration of Cancun (1992) that requested FAO to draft a code of conduct for responsible fisheries and the adoption of a code in 1995, responsible fishing has become a much talked about subject. WMU professors, alumni, and faculty agreed that there was a need to add a fisheries management component to its Marine Safety and Environmental Protection Program.

The Canadian experience, deemed unique in the world, provides students with a workable model that they can bring back to their respective countries for consideration by those involved in the challenge to develop successful fisheries management policies and applications.

Invited to participate in the valuable work being done at WMU, Canada readily accepted the invitation. To begin, Canada has long recognized that it is the

collective efforts of the global fishing community that will ensure viable fisheries of the future. Thus, an extraordinary opportunity to promote the concept of responsible fishing could not be refused.

Moreover, participation in the WMU training program would also provide a further opportunity to establish Canada's credentials as a world leader in the pursuit of fisheries conservation.

Additionally, in communicating the Canadian experience to a multi-national audience, Canada would be in a position to influence a prestigious network of marine experts and practitioners who stretched the globe.

Finally, participation in WMU programs would lay the groundwork for building and maintaining global partnerships for collaborative research and information exchange.

All this and the material developed would also have application in Canada.



At the World Maritime University, the "global village" is a reality.

COURSE DESCRIPTION

A series of lectures on responsible fisheries management was delivered over a one-week period by Dr. Karl Laubstein of WMU and visiting professors Mr. John Fitzpatrick (formerly of FAO) and Mr. Andrew Duthie, DFO, Canada, two specialists in the area of responsible fisheries management.

The overall objective of the course was to:

"consider the international and national efforts aimed at establishing a regime for conducting responsible fisheries."

The series of lectures were divided into three sections - an introduction delivered by Dr. Karl Laubstein; the FAO Code of Conduct for Responsible Fisheries delivered by Mr. Fitzpatrick; and the Canadian experience delivered by Mr. Andrew Duthie.

Introduction

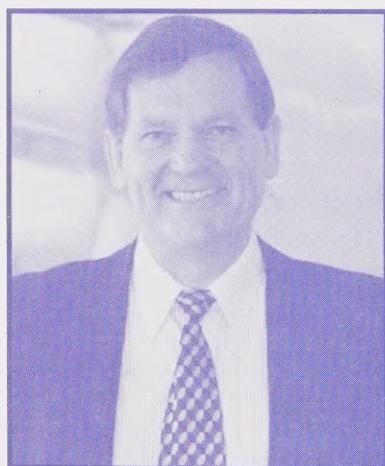
Students were introduced to the key components of fisheries management - conservation, resource exploitation and development, and resource distribution. The relationship between each of these elements and the fisheries management process was described including: the role of scientific research; resource assessment;

consultation with stakeholders; management plans; and monitoring of operations.

Dr. Laubstein then traced Global trends and developments such as the collapse of many of the world's major fisheries, in particular the collapse of

the Canadian groundfish fishery, and the growing public demand for a change in the way fisheries are pursued. This resulted in the development of an international code of conduct and in Canada, a new approach to fisheries management - an approach that embodies sustainable

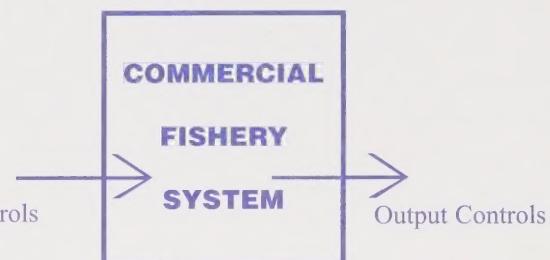
exploitation of the resource, protection of the habitat and resource, shared responsibility for management of the resource, effective enforcement of regulations, and the need for an integrated oceans management system.



Dr. Karl Laubstein, Rector WMU

INPUT - OUTPUT MODEL

OF FISHERIES MANAGEMENT CONTROLS



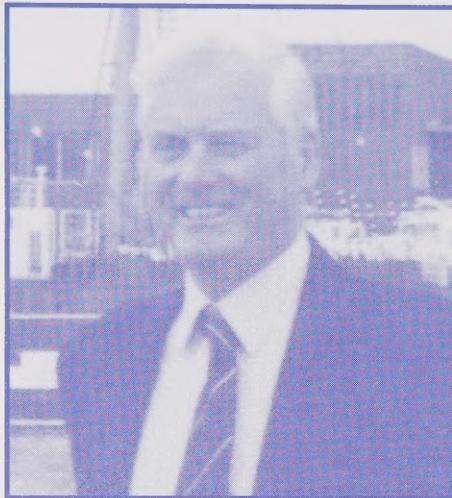
- Registration & Licensing
- Issuance of Licenses
- Limited Entry
- Fishing Restrictions
- Technology Restrictions
- TACs
- Quote Management
 - Fleet & Gear
 - Common vs Individual
- Bycatch Limitations

Students were presented with an input-output model of fisheries management controls. This model depicts the relationship of licensing, restrictions on gears and vessels, and fishing activity to total allowable catches, quota management and by-catch limitations. This overview of fisheries management set the stage for the visiting professors to expound on their role in developing world-wide responsible fisheries.

FAO Code of Conduct for Responsible Fisheries

In this section of the course, John Fitzpatrick provided students with an outline of the role of the FAO in articulating a Code of Conduct for Responsible Fisheries that could assist member countries in:

- establishing the legal framework required for responsible fisheries;
- formulating international agreements;
- elaborating national policies for conservation; and
- facilitating technical, financial, and other cooperation needed to protect fisheries resources.



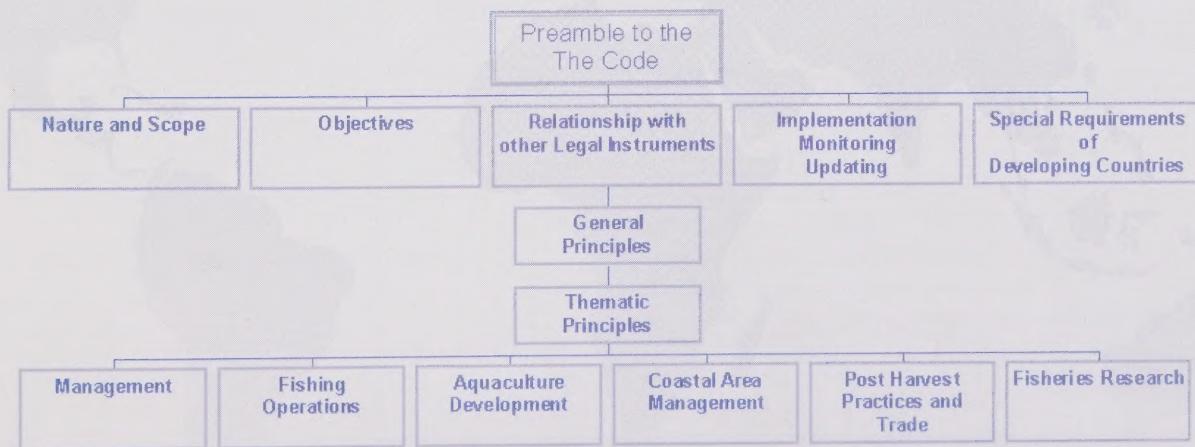
Mr. John Fitzpatrick, visiting professor at WMU.

- Nature and scope of the Code (Principles and) and the relationship with other legal instruments;
- Links with coastal management, fisheries management, fisheries research, and operations;
- The precautionary approach including the role of scientific advice, the need for an "Authorization to Fish" and system of record keeping; and technology and fisheries legislation;
- The Compliance agreement; and
- Duties of all states, flag, states, and port states.

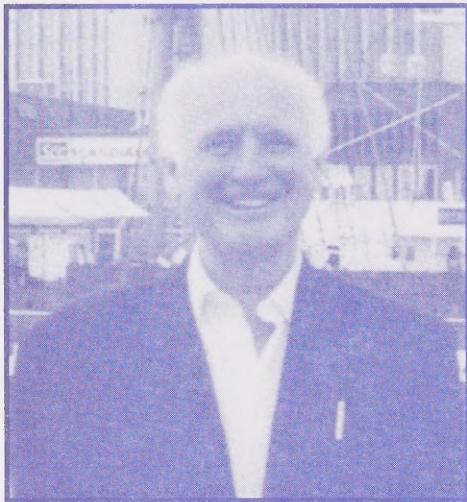
Reviewed were:

- Events leading to the adoption of the Code in 1995;
- Legal status of the Code;

Code of Conduct for Responsible Fisheries



The Canadian Approach in Developing Responsible Fisheries
The Canadian experience began with a profile of Canadian fisheries tracing its evolution from its early beginnings to the present day.



Mr. Andrew Duthie, visiting professor at WMU

Topics Discussed:

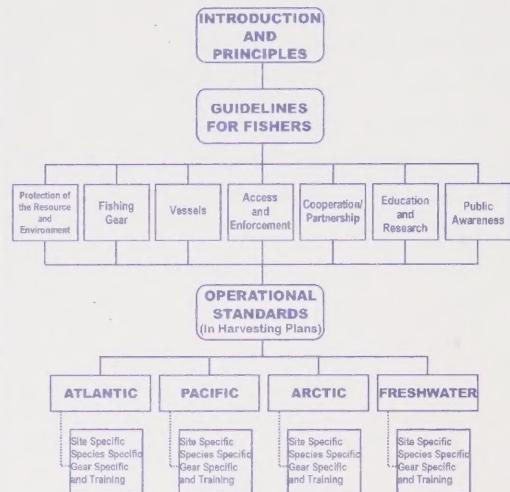
- Geographical regions
- Diversity of species
- Types of vessels and gears used
- Impact of cod and salmon crises

Next students were presented with the Canadian approach to the development of responsible fisheries. Discussed were three major initiatives:

1. The Canadian Code of Conduct for Responsible Fishing Operations

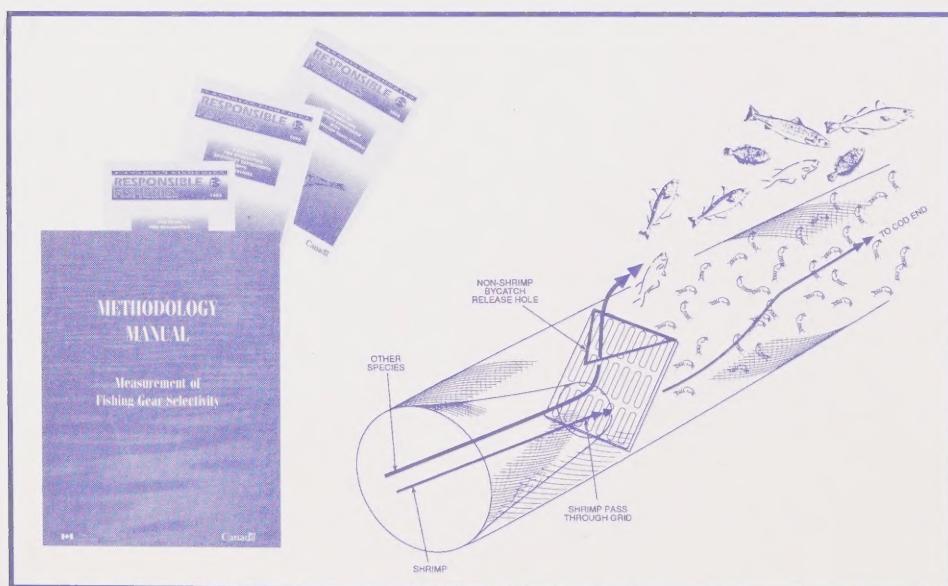
- Origins
- Process - consultation and collaboration with grass roots, ratification, and governance
- Contents of the Code - guiding Principles and Guidelines
- Application of the Code in management process

COMPONENTS OF THE CANADIAN CODE OF CONDUCT FOR RESPONSIBLE FISHING OPERATIONS



2. Responsible Fishing Projects

- Types of gears and desirable selectivity characteristics
- Criteria for selecting projects
- Methodologies and protocols used to conduct experiments on commercial vessels
- Tools for at-sea tests
- Results of experiments

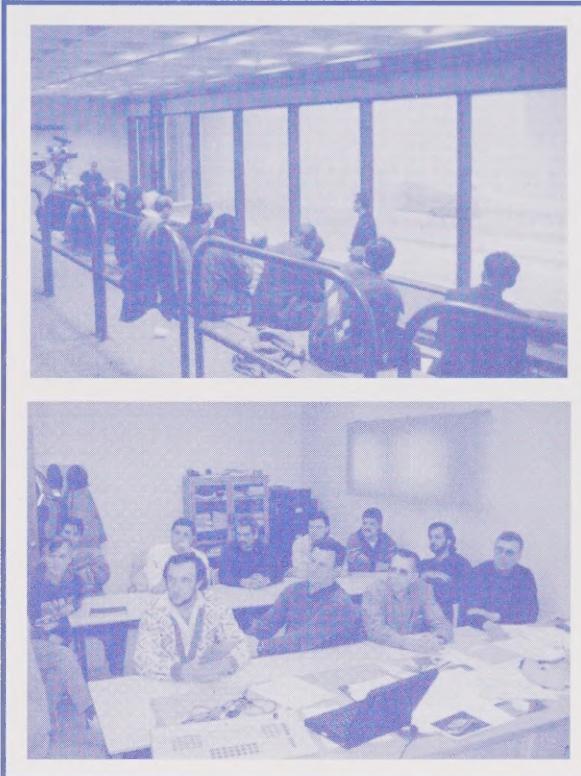


Tools used to conduct at-sea trials such as with shrimp grids (shown).

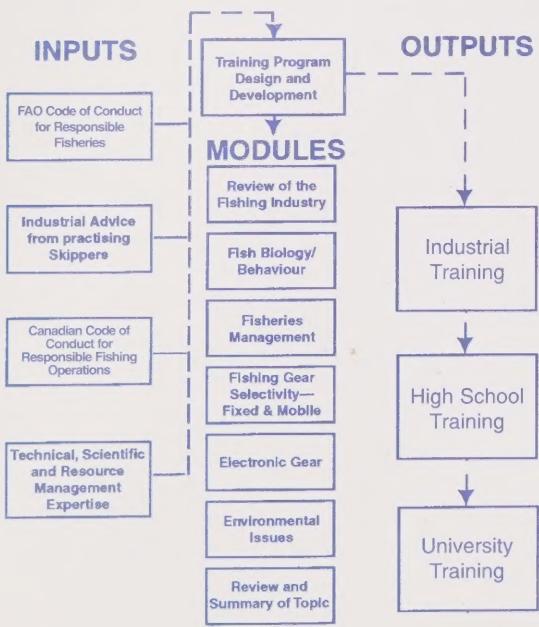
3. Training for Commercial Fishers and High School Students

- Why training needed?
- Industrial Training Program in Responsible Fishing - New Brunswick School of Fisheries, Marine Institute, Newfoundland, and North West College, British Columbia
- High School Training Module
- Requirements for professional certification of fishers

WMU Students learn about Canada's Industrial Training Program. The program combines classroom work with hands-on practical training that takes place in the flume tank and net loft.



Training Program in Responsible Fishing



Components of Canada's Industrial Training Program

STUDENT AND COURSE EVALUATION

A final exam of thirty-two (32) multiple-choice questions administered at the conclusion of the lectures was used to evaluate student understanding of topics covered. The twenty-six (26) participating students scored a mean grade of B+.

Proof that the course was accepted and beneficial - student evaluations.

Students rated the course module and lecture delivery in twelve (12) key areas. Results show that 90% of students rated the module as good or very good in achieving the overall objective and for relevance to their studies. Lectures were rated good or very good for effectiveness, structure, and interaction and more than 60% of students rated lectures as thought provoking.

Students did suggest that the module could be improved with the addition of a more practical component, adding that they would have liked to have an opportunity to observe gears in action, noting various selective characteristics.

CONCLUSION

As a major introduction of fisheries issues into the WMU's Maritime Safety and Environmental Protection Program, the module was clearly an overwhelming success. It is anticipated that the module will be a standard component of the Marine Safety and Environmental Protection Program to be delivered to students from around the world.

The Department of Fisheries and Oceans in conjunction with the World Maritime University is planning to publish the course material in book format for international distribution.

POINT OF CONTACT

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